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In the Claims:

1-21. (Canceled)

22. (Amended) A monolithic optical transmitter and receiver pair comprising:

a semiconductor substrate;

an optical transmitter formed on a portion of said substrate; and

an optical receiver formed on said substrate, laterally adjacent to said optical transmitter, said optical receiver optically and electrically isolated from said optical transmitter.

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23. (Previously added) The device of claim 22 wherein said optical receiver further comprises:

a photodiode.

24. (Previously added) The device of claim 22 wherein said optical transmitter further comprises:

a VCSEL having a plurality of layers.

25. (Previously added) The device of claim 24 wherein said VCSEL further comprises:

an isolation region defining discrete areas of active VCSEL layers and discrete areas of inactive VCSEL layers.

26. (Previously added) The device of claim 25 further comprising:

means for disabling inactive VCSEL layers.

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27. (Previously added) The device of claim 22 wherein said optical transmitter further comprises:

first mirror layers formed on said substrate;

a first cladding layer formed on a topmost first mirror layer;

an active region formed on said first cladding layer;

a second cladding layer formed on said active region; and

second mirror layers formed on said second cladding layer.

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28. (Previously added) The device of claim 27 wherein said active region further comprises:

at least one quantum well layer.

29. (Previously added) The device of claim 28 wherein said first and second mirror layers further comprise:

epitaxially grown distributed Bragg reflectors.

30. (Previously added) The device of claim 22 wherein said optical receiver further comprises:

a photodiode formed on a topmost second mirror layer of said inactive VCSEL layers.

31. (Previously added) The device of claim 22 wherein said optical receiver further comprises:

a p-type layer formed on a topmost second mirror layer of said inactive VCSEL area;

an intrinsic layer formed on said p-type layer;

an n-type layer formed on said intrinsic layer;

a photodiode cathode contact formed on said n-type layer; and

a photodiode anode formed on said topmost second mirror layer.

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32. (Previously added) The device of claim 26 wherein said means for further comprises:

an electrical short circuit between said substrate and said photodiode anode.

33. (Previously added) The device of claim 22 further comprising:

a non-reflective coating on said optical receiver.

34. (Previously added) The device of claim 22 wherein said optical receiver further comprises:

a photodiode formed on said semiconductor substrate.

35. (Previously added) The device of claim 31 wherein said photodiode further comprises:

a metal-semiconductor-metal photodiode.

36-39. (Canceled)